

CLAIMS

1. An integrated process of simultaneous synthesis and crystallisation for the preparation of dipeptide crystals with the generic formula AcXYNH_2 , starting from the amino acids AcXOEt and YNH_2 , which is characterised by the use of proteases in organic media of reversed micelles.
2. Process according to 1, characterised by the fact that it is carried out in batch reactors.
3. Process according to 1, characterised by the fact that it is carried out in an enzymatic, membrane and hydro-cyclone, reactor which enables the continuous or batch production of the referred crystals.
4. Process according to claims 1, 2 and 3 characterised by the fact that it is used for the production of other dipeptides or dipeptide derivatives with the generic formula XY , starting from amino acids X and Y.
5. Process according to claims 1, 2, 3 and 4 characterised by the fact that the synthesis process is chemical and not enzymatic.
6. Process according to claims 3, 4 or 5, characterised by the fact that instead of a hydro-cyclone, another unit is coupled to the system which also enables the continuous sedimentation and removal of the crystals from the system.
7. Process according to claims 1, 2, 3, 4, 5 and 6 characterised by the fact that the resulting crystals are further purified by re-crystallisation in an adequate solvent.